

Application No. 10/022,131
Amendment dated November 3, 2004
Reply to Office Action of August 17, 2004

AMENDMENTS TO THE SPECIFICATION:

Please replace paragraph [0001] with the following amended paragraph:

[0001] This application is based on, and priority is claimed from, patent application 0107598.5 filed in the United Kingdom, on March 27, 2001 ~~the contents of which are hereby incorporated by reference.~~

Please replace paragraph [0018] with the following amended paragraph:

[0018] According to another embodiment of the present invention, a reinforced concrete sectional pile is provided ~~comprising a~~ comprising a reinforcing bar molded into a concrete pile section, the reinforcing bar extending in a longitudinal direction. The reinforced concrete pile also comprises a housing provided on an end of the reinforcing bar, the housing having a first interior surface defining a first passage that extends in the longitudinal direction between a first aperture and an intermediate portion of the housing, and a second interior surface defining a second passage that extends in the longitudinal direction between a second aperture and the intermediate portion of the housing, wherein the end of the reinforcing bar is disposed within the second passage of the housing. The reinforced concrete pile further comprises a joining member for joining the housing to a second housing, the joining member having an exterior surface, wherein the first interior surface includes a first mating surface, and the exterior surface includes a second mating surface, and wherein the first and second mating surfaces are configured such that the second member can be inserted and thereby locked into the first passage.

Please replace paragraph [0024] with the following amended paragraph:

[0024] The housing 12 also has a second attachment socket 36 which, in this embodiment, has a circular cross section. The second attachment socket 36 is provided at a second end of the housing 12. Protrusions 38 having a saw tooth

configuration project inwardly from the inner walls of the second attachment socket 36. Each protrusion 38 has an inner face 38a, which is generally perpendicular to the socket wall, and an outer face 38b, which is inclined inwardly with respect to an entrance at the second end of the second attachment socket 36. According to the present invention, the protrusions 38 can comprise annular protrusions that extend continuously around the internal wall of the socket, but in the present preferred embodiment the protrusions 38 comprise four serrated wall sections 40 spaced from each other by wall sections 42 having no substantial protrusion therefrom. It should be noted that the number and style of serrated wall sections 40 can be varied without departing from the spirit and scope of the present invention.

Please replace paragraph [0026] with the following amended paragraph:

[0026] Next, the joining member 14 will be described with reference to Figs. 6-8. The joining member 14 comprises a hollow cylinder 60, having a length between one and two times a depth of the second attachment socket 36, and having a first end, a second end, and a short central portion 62 with no substantial protrusions therefrom. Serrated sections 64 extend from each of the first end and the second end to the central portion 62 and have protrusions 66 configured to correspond with the configuration of the protrusions 38 from the serrated wall sections 40 of the second attachment socket 36. The protrusions 66 preferably extend around the entire circumference of the joining member 14; however, the present invention is not limited to this configuration. The joining member 14 is also provided with two diametral slots 68 extending longitudinally therealong from each of the first end and the second end and, preferably, to a point beyond the central portion 62. The slots 68 extending from the first end of the joining member 14 are displaced relative to the slots 68 extending from the second end, preferably by an angle in a range of 80° to 100°, most preferably by 90°, as measured from the center of the cross section of the joining member 14. The joining member 14 is preferably

molded as a single component from glass fiber reinforced polyphthalamide; however, the joining member 14 is not limited to such a composition and method of construction. For example, the joining member 14 can be molded as a single member from a metal or a ceramic material, or constructed in some way using pieces from a single one of or a combination of types of materials.

Please replace paragraph [0028] with the following amended paragraph:

[0028] Reinforced concrete pile sections 90 and 92 each comprise a central steel reinforcing bar 94 cast into concrete 96. The pile sections 90 and 92 may have square, circular or any other suitable cross sections. The first attachment socket 30 of the housing 12 can be fitted to an end of a respective reinforcing bar 94 prior to molding the concrete piles 90 and 92. Then, the concrete 96 of the respective concrete piles 90, 92 can be molded around the outer surface of the housing 12 and the reinforcing bar 94, leaving the opening to the second attachment socket 36 of the housing 12 exposed from an end face of the thus formed pile sections 90, 92. Two pile sections 90 and 92 formed in this manner, i.e., each having an opening to a second attachment socket 36 of a housing 12 cast therein exposed on an end face thereof, can be joined by bringing them together in an end-to-end relationship, each of the end faces having the second attachment sockets 36 exposed therefrom being placed face to face. A joining member 14 can be forced into the second attachment socket 36 of a first one of the two pile sections 90. The second pile section 92 can then be placed in an end-to-end relationship with the first pile section 90 such that part of the joining member 14 protruding from the end of the first pile section 90 can be inserted into the second attachment socket 36 of the second pile section 92. A pile driving operation can then cause full penetration of the joining member 14 into the second attachment socket 36 of each of the housings 12 cast in the pile sections 90 and 92, and an end-to-end abutment of the pile sections 90 and 92 can be achieved, as shown in ~~Fig. 1~~ Fig. 9.